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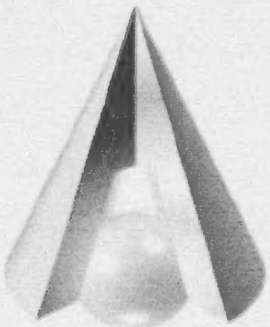
Employment Transitions Among Older Workers Leaving Long-term Jobs: Evidence from Administrative Data



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^{p}	preliminary
^{r}	revised
x	suppressed to meet the confidentiality requirements of the *Statistics Act*
^{E}	use with caution
F	too unreliable to be published
*	significantly different from reference category ($p < 0.05$)

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Abstract

This study documents the prevalence and nature of re-employment among workers who left long-term jobs in paid employment at age 50 or older. The analysis is based on a 28-year administrative panel dataset, the Longitudinal Worker File, capitalizing on its large sample size and detailed information on mobility across employers. The study examines the prevalence, time and covariates of re-employment as a paid employee and in unincorporated self-employment; the nature of paid re-employment, including job duration, mobility across industry and firm size; the distribution of average earnings in re-employment compared with the long-term job; and the covariates of low and high relative earnings in re-employment.

Keywords: Older workers; Employment; Self-employment; Earnings; Retirement; Transitions.

Executive summary

This study documents employment patterns over the subsequent 10 years of workers who left a long-term job (at least 12 consecutive years) in paid employment at age 50 or older in the late 1990s and early 2000s.

The analysis is based on an administrative panel dataset, the Longitudinal Worker File. The study takes advantage of several features of this dataset: the 28-year panel frame; information on movement between employers and on earnings with the various employers; and the large sample size—a 10% random sample of workers in Canada.

Among workers who left a long-term job at ages 50 to 66, 33% of men and 27% of women were re-employed the same year, and among the rest, a further 27% of men and 24% of women were re-employed the following year. The probability of re-employment fell sharply thereafter. This pattern generally persisted when analysis was conducted by age at exit from the long-term job, reason for leaving, province of residence, and financial status.

The nature of re-employment among workers receiving only paid employment earnings during the subsequent decade (no unincorporated self-employment income) largely depended on their age when they left their long-term job. A large share who left in their early 50s appeared to continue their careers with sustained employment and comparable earnings over the reference period. The likelihood of re-employment fell at older ages, and median earnings relative to earnings in the long-term job were much lower.

The probability of having low or high relative (to the long-term job) earnings in re-employment was associated with factors such as the reason for leaving, the presence of a registered pension plan with the long-term employer, marital status, and province of residence.

A large share of workers who left long-term employment as paid employees reported income from unincorporated self-employment at some point during the subsequent 10 years. Entry into self-employment was less concentrated in the first two years after leaving the long-term job than was paid employment. Two-thirds of workers with earnings from unincorporated self-employment also reported earnings from paid employment during the reference period. Net self-employment earnings were modest, compared with earnings from the long-term job.

1 Introduction

Rather than a single, clearly demarcated event, retirement is often a process spanning several years. Paths to retirement are diverse, and can involve late-life career shifts, jobs that bridge the period between the end of a career and complete withdrawal from the labour market, and reverse retirement. Economic conditions and institutional arrangements change, as do the socio-economic characteristics of each cohort of workers. The retirement circumstances of the baby boom generation differ from those of preceding cohorts. How long workers stay in the labour force and the transitions they make before leaving permanently are likely to vary over time, because "every cohort retires in the context of its times" (Ekerdt 2010, p.69).

Much of the analysis of pathways to retirement is based on American data. While the issues examined in that research have widespread application (for example, the voluntary/involuntary nature of retirement), some key factors that shape retirement differ between the U.S. and Canada. The health care and retirement income systems in the two countries, as well as trends in housing prices, are examples.

Many studies of retirement transitions specific to Canada have been based on cross-sectional surveys (for instance, the General Social Survey or Canadian Community Health Survey) or longitudinal surveys with fairly short reference periods (for instance, the Survey of Labour and Income Dynamics). Such data offer important insights on the prevalence and correlates of various pathways to retirement, but they do not provide information on trajectories over a long period. Moreover, if cohort effects are present, cross-sectional data may yield a misleading picture.

Documenting older workers' route to retirement provides a basis for asking more detailed questions about how policy mechanisms can affect the retirement behaviour of Canadians. In the context of population aging, employment dynamics among older workers have implications for aggregate labour supply. Employment patterns en route to retirement also matter for employers seeking to retain or recruit older workers with valued skills and experience. The availability and structure of benefit packages, particularly pension characteristics, may influence workers' cost-benefit analysis of the decision to remain employed. As well, older workers who wish to move into retirement slowly or to come out of retirement may place greater value on flexible work schedules than do their younger counterparts. Information on the transitions older workers are making puts this discussion in context. Finally, employment dynamics en route to retirement have implications for Canada's retirement income system. Willingness and opportunity to remain in the paid labour force can influence the incidence and timing of take-up of publicly administered programs, such as the C/QPP.

This study explores the subsequent employment patterns of workers who, at age 50 or older, left long-term jobs in paid employment.

2 Literature

The Canadian retirement literature includes studies of the age of pension uptake (Wannell 2007), trends in the age of retirement (Lefebvre et al. 2011) and potential explanations (e.g. Schirle 2008), and income replacement rates (Larochelle-Côté et al. 2010). Less evidence is available on employment transitions into retirement—Hébert and Luong (2009) studied employment among workers collecting pension income, and Morissette et al. (2004) examined attitudes toward working in retirement.

The definition of retirement varies across studies, from self-reported status to a range of objective measures (Denton and Spencer 2009). With data from the American Health and

Retirement Study (HRS), Gustman and Steinmeier (2000) used several measures to compare the shares of the population "not retired," "partially retired" and "retired." They found that whether an hours- or earnings-based measure, or simply individuals who left their long-term job, was used, similar percentages of 51- to 61-year-olds (in 1992) were classified as "not retired." However, a larger share of workers self-reported "not retired" than objective measures indicated. Disparities between the percentage of the sample self-reporting "partially retired" and those based on objective measures were smaller. The difference between self-reported and more objective measures of retirement diminished in subsequent waves of the survey, when respondents were older.

The literature on older workers has identified distinct stages in the retirement process. A series of studies using U.S. data explored "bridge employment" (Ruhm 1990; Cahill et al. 2006, 2011), defined as jobs taken after the end of a career job (definitions of the latter vary) and before complete exit from the labour force. More than half of workers leaving career jobs in their 50s continue working to some extent.

A related concept, "partial retirement," generally involves scaling back hours (Ruhm 1990). Workers who self-report "partially retired" are more likely to do so after leaving a career job than while still in their career job (a transition called "phased retirement"; review of terminology in Kantarci and van Soest, 2008).

Finally, people who return to the workforce after having retired are described as "un-retiring" or "reverse retiring" (Ruhm 1990, Blau 1994, Maestas 2010, Cahill et al. 2011). This is less common than bridge employment, and for the majority who re-enter the labour force, the return is expected and not driven by financial stress (Maestas 2010). Using Canadian data, Schellenberg et al. (2005) found that many near-retirees expect to have ongoing workforce participation, with almost half of employed Canadians in their late 40s and early 50s including employment earnings among their anticipated sources of retirement income.

3 Data and key concepts

The analysis is based on information from the Longitudinal Worker File (LWF). This administrative database is a 10% random sample of individuals with positive T4 earnings or non-zero net self-employment income in any year from 1983 to 2010.

The LWF is constructed by integrating data from four sources. Individual-level demographic and financial information, such as sex, age, marital status and net self-employment income, comes from T1 personal taxation files. Information about the jobs held by these individuals, such as earnings and registered pension plan contributions, comes from T4 Statements of Remuneration. Information about the reason for job interruption or termination is from the Record of Employment (ROE) that employers submit to Human Resources and Skills Development Canada when people working in insurable employment have an interruption in earnings. Firm-level information, such as estimated firm size and industry, is from the Longitudinal Employment Analysis Program (LEAP) at Statistics Canada.

The LWF offers several advantages for studying transitions to retirement. The longitudinal structure, coupled with information on workers' movements from employer to employer, provides a continuous year-to-year employment history on all jobs held, not just the main job.[1]

1. Employers do not have to issue T4 slips for earnings below a nominal threshold. Nonetheless, it is likely that the administrative data capture more jobs than a typical survey would, and furthermore, eliminate recall bias. Blau (1994) constructed quarterly work histories from the bi-annual U.S. Retirement History Longitudinal Survey data and showed that many short work spells are missed when analysis is conducted at the bi-annual level and that conclusions about retirement transitions are sensitive to data quality.

With the 28-year reference period, it is possible to track individuals over an extended portion of their working lives. The quality of earnings data from administrative sources is high; unlike survey-based income data, administrative records are not subject to item non-response or recall error. Finally, the large sample size makes it possible to focus on subgroups such as older workers with long-term jobs.

For this analysis, an employment spell is defined as the number of consecutive years a worker received T4 earnings from a specific firm or organization. The calculation of job duration in this study allows for one-year breaks in employer-specific earnings, provided that receipt of earnings from the same employer resumes the following year. For example, an individual with three consecutive years of earnings from a specific employer, followed by a year with no earnings from that employer, and then, a subsequent year with earnings from the same employer, is defined as having continuous employment with that firm. This allows for the possibility of time off to have children, raise families, return to school and attend to health issues, as well as for measurement error due to late tax-filing. When two or more consecutive years elapse with no earnings from the employer and then earnings resume, a second employment spell is considered to start.[2] Spells of *unincorporated* self-employment are defined the same way.[3] Spells of *incorporated* self-employment cannot be identified using the LWF; such employment would be captured as "paid employment" if owners of incorporated businesses issue themselves a T4 for wages or salary received. In this analysis, the term "job" is equivalent to "employment spell."

"Long-term job" (LTJ), a central concept in this study, is defined as a continuous spell with a single employer lasting 12 calendar years or more. Some earlier studies defined "career jobs" as those lasting 10 years or more (Cahill et al. 2006, 2010). Because the exact start and end dates of all job spells[4] are not available, a job observed over 10 calendar years could have lasted just over 8 years if it had started in December of the first year and ended in January of the last. For this analysis, only workers who at age 50 were in an employment spell of at least 12 years were retained in the sample; specifically, employment spells that started when the workers were no older than 49 and ended when the workers were 50 or older.[5] As documented in Bonikowska and Schellenberg (2013), about two-thirds of employed Canadians at the leading edge of the baby boom had a long-term job that met these criteria.

The sample consists of workers whose LTJ was in paid employment, rather than unincorporated self-employment. Workers who died during the LWF timeframe (as indicated on their T1 tax forms) were excluded from the analysis. The sample was restricted to workers aged 28 to 47 in 1983. This restriction was driven by two considerations. First, it was necessary to establish that the LTJ began before age 50, so the workers had to turn 50 sometime from 1986 to 2005. Second, at some point in the LWF timeframe, workers had to be aged 47 to 49, because the proxy for "permanent earnings" used in the multivariate analysis is average earnings at ages 47 to 49. A handful of workers who did not have earnings at these ages were excluded from the sample. The sample was restricted to workers who left their LTJ between

2. When only paid employment income is considered, fewer than 5% of worker-employer spells are characterized by a break of two years or more. Self-employment income is more frequently characterized by gaps of two years or more in income from that source. Whether this reflects true employment changes or ongoing fluctuations in the self-employment activity cannot be determined.
3. It is not possible to distinguish net self-employment income from different business ventures. For instance, if a self-employed caterer closed that business one year and opened a restaurant the next, it would constitute two distinct business ventures, but would be counted as a single spell of self-employment.
4. This information is only observed if a job ended with an ROE, and even then, is frequently missing or pertains to the re-start of a job after the last (if any) temporary separation for which an ROE was issued.
5. For some workers, multiple jobs met these criteria. A single LTJ was designated per worker by applying the following criteria sequentially: the job that ended last; was observed longer; and had higher cumulative earnings over the years it was observed in the LWF. If multiple jobs per worker were still present, one was chosen at random (by the first letter of the job ID in the LWF that comes first in the alphabet).

1994 and 2005.[6] Finally, workers who were older than 66 when they left their LTJ were excluded due to small sample sizes. Thus workers in the sample were aged 50 to 66 when they left their LTJ. This sample consists of 280,617 workers (Appendix Table 16).

After their LTJ ended, workers were followed for up to 10 years until the earliest of: (1) the tenth year after the year that the LTJ ended; (2) the year in which "re-employment" occurred; or (3) the last year of the panel (2010). Re-employment is defined as any employment income[7] obtained in or after the year the LTJ ended, and can be from paid employment or self-employment. The jobs considered to be re-employment are: jobs that started in the exit year and ended after the exit year; jobs that started before the exit year and ended after the exit year; and jobs that started after the exit year. Jobs that started in or before the exit year and ended in the exit year were excluded.

Some analyses are based on a restricted sample comprised of workers who potentially could be observed within the LWF timeframe for a full 10 years after they left their LTJ. These workers were, at most, 64 when they left their LTJ. Such exits occurred from 1994 through 2000. For convenience, "10-year reference period" after exit from a LTJ is used, although the period could be up to 11 years because it includes the year of exit. The year of exit from a LTJ is referred to as year 0, and subsequent years, year 1, year 2, . . . , year 10.

Later sections of the paper also include analysis conducted separately by age at exit from LTJ, owing to the different characteristics and behaviour of these workers and only workers with no income from unincorporated self-employment.

A large share of workers with LTJs appear to have left these jobs voluntarily—over 86% of both men and women (Appendix Table 17). However, a larger share of workers who separated from their long-term employers in their early 50s rather than at older ages was in fact laid off. Workers who left their LTJs at younger ages also had higher earnings between the ages of 47 and 49—a proxy for permanent earnings. Between two-thirds and three-quarters of LTJ exiters had an RPP with their employer.[8] This share was somewhat higher among workers who left LTJ in their late 50s than either at older or younger ages. Nearly one in five men who left LTJs in their early 50s worked in the public sector, compared to 16% of men who left in their early 60s. Between 11% and 13% of men in the study sample held LTJs in the education or health sector—these numbers were about 3 times as high among women. Between 82% and 83% of men in the sample were married or in a common-law relationship at the end of their LTJ, compared to between 70% and 74% of women.

4 Re-employment

The rate of re-employment was calculated for workers who were aged 50 to 64 when they left their LTJ in 1994 through 2000 and were followed over the 10 subsequent years (the restricted sample). During that time, a large majority of them were re-employed. In fact, just 32% of men and 36% of women were *not* re-employed over that period (Table 1).

The likelihood of remaining out of the workforce was strongly correlated with age at LTJ exit. While 17% of men who left at ages 50 to 54 remained out of the workforce, the figure was 53%

6. 1994 is the earliest year in which an LTJ could end, because job spells must be observed in the data for at least 12 years in order to be labelled LTJs, and the first year of the LWF is 1983. At the other extreme, a reasonable window of time after the end of the LTJ and before the end of the LWF panel (2010) was necessary for the analysis.
7. For a very small percentage of observations in the LWF, a T4 was issued, but earnings were reported as zero. These were likely jobs in which, for example, workers were paid purely on commission.
8. The presence of an RPP is assumed when a positive pension adjustment value appears on the T4 at any point during the LTJ from 1991 (the first year this variable is available on the LWF) to the last year of the LTJ.

for men who left at ages 60 to 64. The pattern was similar among women, but at all ages they were more likely than men to remain out of the workforce after leaving an LTJ.

Table 1

Percentage *not* re-employed in 10 years after leaving long-term job (LTJ) in paid employment, by sex and age group at LTJ exit, workers aged 50 or older, Canada, 1994 to 2010

	Men	Women	Total
		percent	
Age group at LTJ exit			
Total	31.7	36.3	33.8
50 to 54 years	17.3	21.7	19.4
55 to 59 years	37.1	42.8	39.8
60 to 64 years	53.2	58.7	55.7

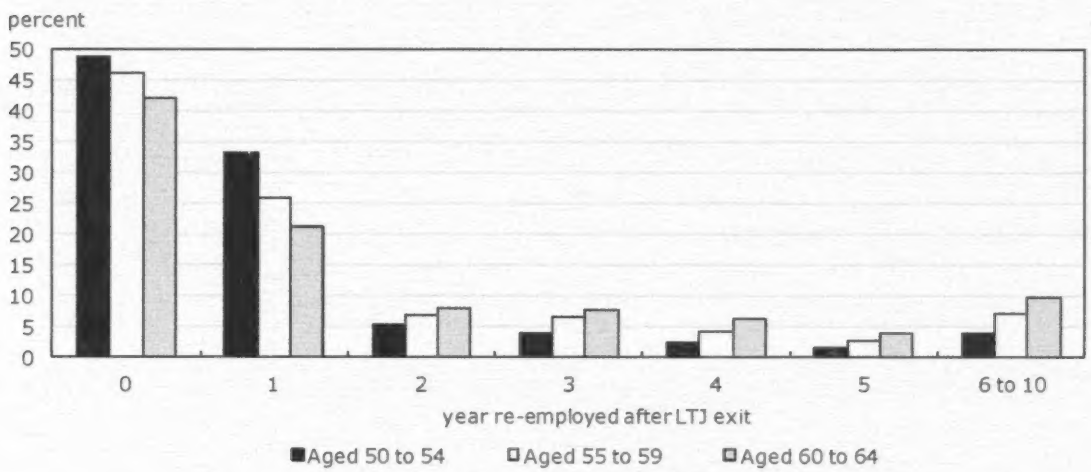
Source: Statistics Canada, Longitudinal Worker File, restricted sample.

It is noteworthy that among those who left an LTJ in their early 60s (well within the "traditional" retirement age range), 47% of men and 41% of women were re-employed during the subsequent 10 years.

Most who returned to the workforce did so within a year or two of leaving their LTJ. Of the men who left at ages 50 to 54, 83% were re-employed in the next decade. For about half of them, this occurred during the same calendar year, and for another third, the following year (Chart 1). Among men who left an LTJ at ages 60 to 64, 47% were re-employed in the subsequent 10 years, but again, re-employment was concentrated in the first years after the LTJ exit: 42% were re-employed the same calendar year, and another 21%, the following year. The same pattern prevailed among women (Chart 2).

Chart 1

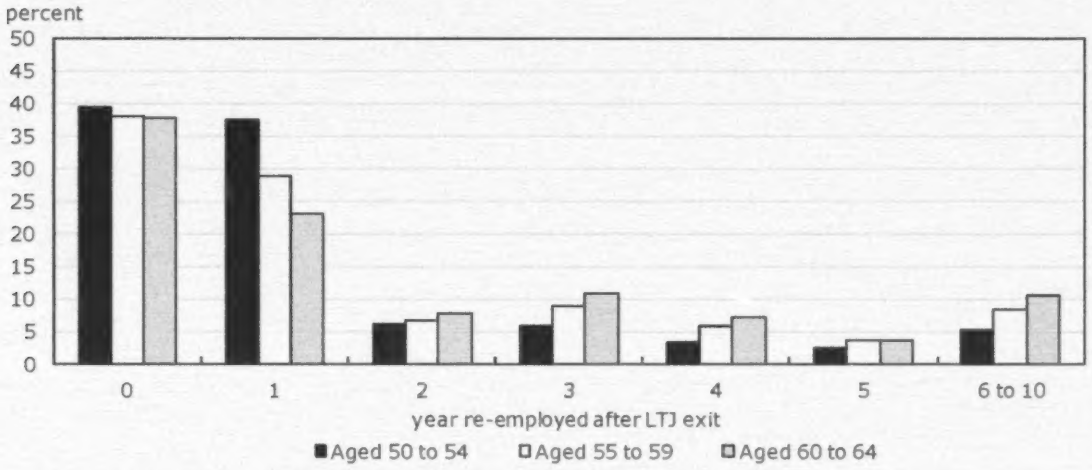
Distribution of re-employment timing among men ever re-employed in 10 years after leaving long-term job (LTJ) in paid employment, by age group at LTJ exit, workers aged 50 or older, Canada, 1994 to 2010



Source: Statistics Canada, Longitudinal Worker File, restricted sample.

Chart 2

Distribution of re-employment timing among women ever re-employed in 10 years after leaving long-term job (LTJ) in paid employment, by age group at LTJ exit, workers aged 50 or older, Canada, 1994 to 2010



Source: Statistics Canada, Longitudinal Worker File, restricted sample.

To examine how the prevalence of re-employment after leaving an LTJ varied by individual and LTJ characteristics, a discrete-time hazard model with a fully flexible, non-parametric baseline hazard function was estimated using a standard logistic regression framework. Predicted hazard rates and the corresponding survival functions were calculated based on the estimated parameters. The model was estimated on the full sample.

The dependent variable takes the value 1 in the year of starting a new job, if ever, and zero in all remaining years. The baseline hazard function is represented by a set of dummies indicating the duration (in years) of non-employment after leaving the LTJ. The model includes age and marital status at LTJ exit, reason for leaving the LTJ (layoff, illness/injury, other), a proxy for permanent earnings,[9] indicators of an RPP in the LTJ, broad industry sector of the LTJ (public, quasi-public such as health and education, and private), and province of residence in the last year in the LTJ. Controls for calendar year are also included.

Chart 3 shows the estimated hazard rate (or conditional probability) of being re-employed at specific points in time after leaving an LTJ, conditional on not being re-employed up to that point. The steep decline in re-employment as time passed again demonstrates that if re-employment occurred, it tended to be fairly soon after an LTJ exit. For example, 33% of men who left an LTJ were re-employed the same year (year 0). Of those who were not re-employed that year, 27% were re-employed the next year (year 1). And of those who were not re-employed by the end of year 1, 9% were re-employed the next year (year 2), and so on.

9. Permanent earnings are proxied by average earnings at ages 47 to 49. If no earnings were recorded at one or two of these ages, earnings or average earnings in the available years were used. Indicators for whether one or two years were used rather than the full three (the base group) are included in all regressions incorporating that measure of permanent earnings.

Chart 3

Estimated hazard rate (conditional probability) of re-employment, by sex and years since exit from long-term job (LTJ) in paid employment, workers aged 50 or older, Canada, 1994 to 2010

Source: Statistics Canada, Longitudinal Worker File, full sample.

The estimated marginal effects in Table 2 show a strong negative correlation between age at LTJ exit and the likelihood of re-employment. Compared with workers who left at age 50, those who exited at age 55 were about 4 percentage points less likely to be re-employed; those who exited at age 60 were 6 to 7 percentage points less likely to be re-employed.

Table 2

Marginal effects of selected characteristics on probability of re-employment after leaving long-term job (LTJ) in paid employment, by sex, workers aged 50 or older, Canada, 1994 to 2010

	Men	Women
	coefficient	
Number of years to re-employment (reference: 0)		
1	-0.018 ***	-0.009 ***
2	-0.075 ***	-0.066 ***
3	-0.073 ***	-0.058 ***
4	-0.083 ***	-0.066 ***
5	-0.089 ***	-0.076 ***
6	-0.091 ***	-0.077 ***
7	-0.089 ***	-0.079 ***
8	-0.091 ***	-0.079 ***
9	-0.090 ***	-0.077 ***
10	-0.088 ***	-0.077 ***
Age at LTJ exit (reference: 50)		
51	-0.007 ***	-0.009 ***
52	-0.016 ***	-0.015 ***
53	-0.019 ***	-0.024 ***
54	-0.030 ***	-0.029 ***
55	-0.045 ***	-0.040 ***
56	-0.049 ***	-0.044 ***
57	-0.051 ***	-0.045 ***
58	-0.057 ***	-0.047 ***
59	-0.060 ***	-0.052 ***
60	-0.068 ***	-0.060 ***
61	-0.067 ***	-0.058 ***
62	-0.068 ***	-0.059 ***
63	-0.070 ***	-0.061 ***
64	-0.071 ***	-0.062 ***
65	-0.078 ***	-0.068 ***
66	-0.071 ***	-0.063 ***
Marital status (reference: never married)		
Married	0.033 ***	-0.004 **
Common-law	0.036 ***	0.002
Widowed	0.009 †	-0.004
Divorced	0.023 ***	0.023 ***
Separated	0.047 ***	0.030 ***
Reason for leaving LTJ (reference: other)		
Layoff	0.023 ***	0.011 ***
Illness or injury	-0.052 ***	-0.039 ***
Sector of LTJ (reference: private)		

See note at the end of table.

Table 2

Marginal effects of selected characteristics on probability of re-employment after leaving long-term job (LTJ) in paid employment, by sex, workers aged 50 or older, Canada, 1994 to 2010 (concluded)

	Men	Women
	coefficient	
Public	-0.013 ***	-0.009 ***
Education and health	-0.005 ***	-0.002 *
Registered Pension Plan in LTJ	-0.026 ***	-0.011 ***
Permanent earnings divided by $10,000	0.000 ***	0.001 ***
Province of residence (reference: Ontario)		
Atlantic Provinces	-0.013 ***	-0.007 ***
Quebec	-0.003 *	0.003 *
Manitoba	0.013 ***	0.015 ***
Saskatchewan	0.026 ***	0.031 ***
Alberta	0.042 ***	0.032 ***
British Columbia	0.002	0.002
Territories	0.121 ***	0.079 ***
Year (reference: 1999)		
1994	-0.023 ***	-0.024 ***
1995	-0.026 ***	-0.022 ***
1996	-0.016 ***	-0.019 ***
1997	-0.029 ***	-0.033 ***
1998	0.000	0.005 *
2000	-0.006 **	0.012 ***
2001	-0.004 †	0.000
2002	-0.007 ***	-0.005 *
2003	-0.006 **	-0.001
2004	-0.008 ***	-0.002
2005	0.006 **	-0.001
2006	-0.012 ***	-0.006 **
2007	0.017 ***	0.045 ***
2008	-0.001	0.008 *
2009	-0.016 ***	-0.010 **
2010	0.003	-0.013 **

*** significantly different from reference category (p<0.001)
** significantly different from reference category (p<0.01)
* significantly different from reference category (p<0.05)
† significantly different from reference category (p<0.10)
Source: Statistics Canada, Longitudinal Worker File, full sample.

Men and women who were separated or divorced were more likely than their never-married counterparts to be re-employed after leaving an LTJ. However, married men were *more* likely to be re-employed than never-married men, but married women were *less* likely to be re-employed.

Compared with Ontario residents, older workers living in Atlantic Canada were less likely to be re-employed after an LTJ exit; those living in Manitoba, Saskatchewan, Alberta and the Territories were more likely to be re-employed.

Reflecting the role of financial security in retirement decisions, workers who had Registered Pension Plan (RPP) coverage in their LTJ were less likely to be re-employed than were those without coverage. Permanent earnings, on the other hand, were positively related to the likelihood of re-employment, although the marginal effect was small. This variable may capture factors other than financial security, such as educational attainment or the availability of attractive employment opportunities.

Even when RPP coverage and permanent earnings were taken into account, older workers who left LTJs in the public and quasi-public sectors were less likely to be re-employed than were those who left private sector LTJs.

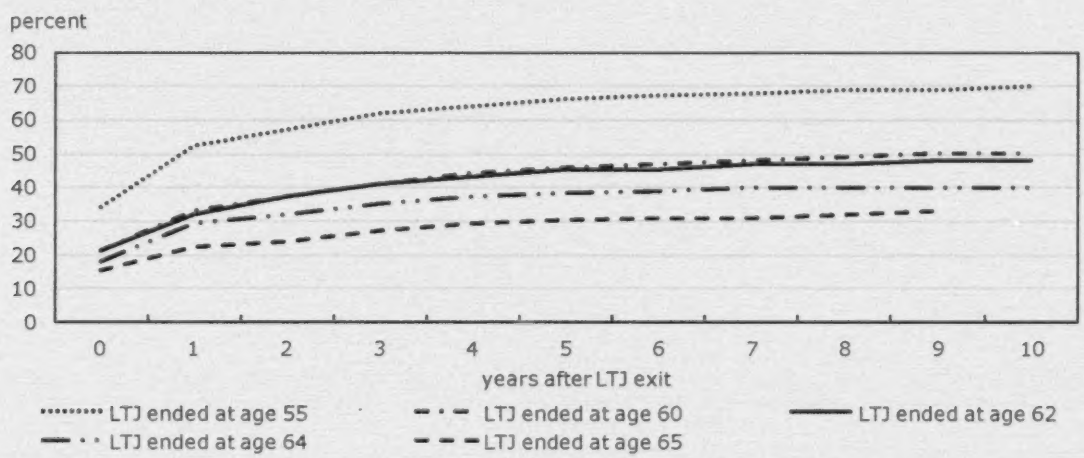
Finally, workers who left LTJs because of injury or illness were less likely to be re-employed than were those who left for other reasons. Workers who were laid off were the most likely to be re-employed.

The duration model was rerun for different subgroups of workers. Charts 4 through 11 show the cumulative percentages of older workers who were re-employed over the 10 years after LTJ exit, by age at exit, reason for exit, province, and financial situation. The cumulative percentages are calculated as 1 minus the survival rate in non-employment. Covariates in the model were set to the mean values of the specific group for which survival rates were calculated.

Regardless of their age at exit, most re-employment of older workers occurred within a year or two. While about 70% of men who left their LTJ at age 55 were re-employed by the end of year 10, for three-quarters of this group, re-employment occurred by the end of year 1 (Chart 4). By the end of year 10, half of men who left their LTJ at age 60 were re-employed, but for close to two-thirds of them, this had happened by the end of year 1. Re-employment rates were lower among women, especially at younger ages, but the timing was similar (Chart 5).

Chart 4

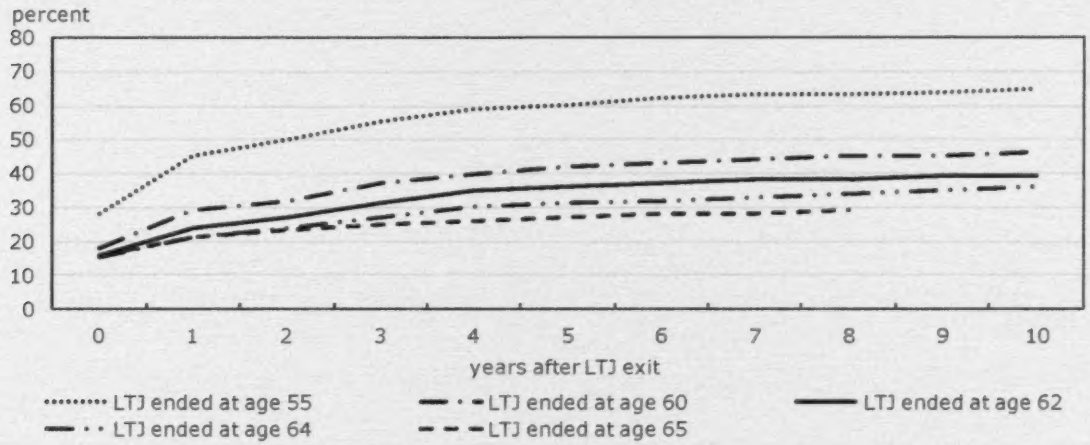
Cumulative percentage of men re-employed after leaving long-term job (LTJ) in paid employment, by age at LTJ exit and timing of re-employment, workers aged 50 or older, Canada, 1994 to 2010



Note: For workers aged 65 at LTJ exit, data for year 10 are not available for the reference period.
Source: Statistics Canada, Longitudinal Worker File, full sample.

Chart 5

Cumulative percentage of women re-employed after leaving long-term job (LTJ) in paid employment, by age at LTJ exit and timing of re-employment, workers aged 50 or older, Canada, 1994 to 2010



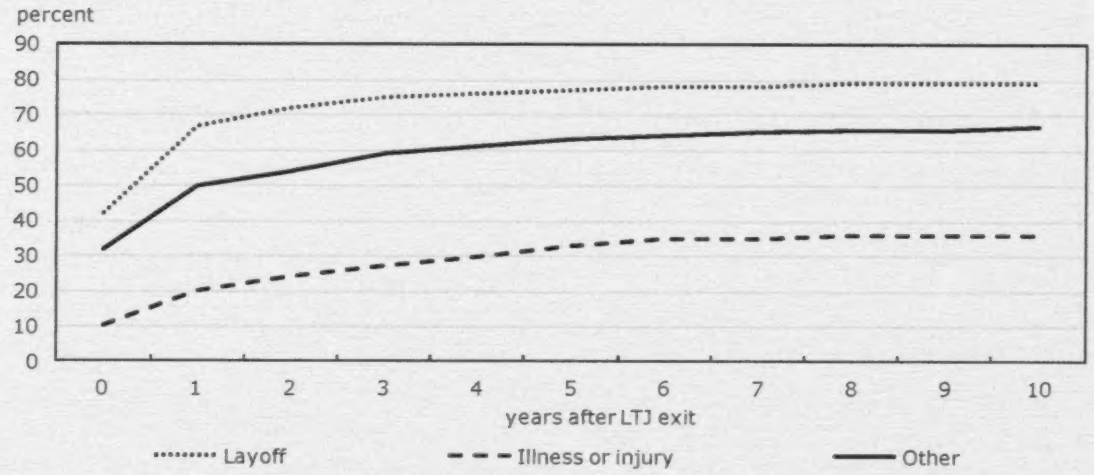
Note: For workers aged 65 at LTJ exit, data for year 9 and year 10 are not available for the reference period.
Source: Statistics Canada, Longitudinal Worker File, full sample.

Substantial differences were evident in re-employment patterns according to the reason for leaving the LTJ (Charts 6 and 7).[10] For example, 79% of men who were laid off were re-employed within the next 10 years, and for more than 8 out of 10 in this group, re-employment occurred by the end of year 1. Re-employment was lower among men who left for other reasons (excluding injury or illness), including retirement. Re-employment rates of men were lowest among those who left because of injury or illness—just over a third of them had returned to employment by the end of year 10, and they did so after longer spells out of the workforce, compared with the two other groups.

10. Covariates in the model (age at LTJ exit, permanent earnings, RPP coverage, and so on) are set to the mean values specific to each group so that the profiles shown in the charts reflect differences in characteristics and outcomes.

Chart 6

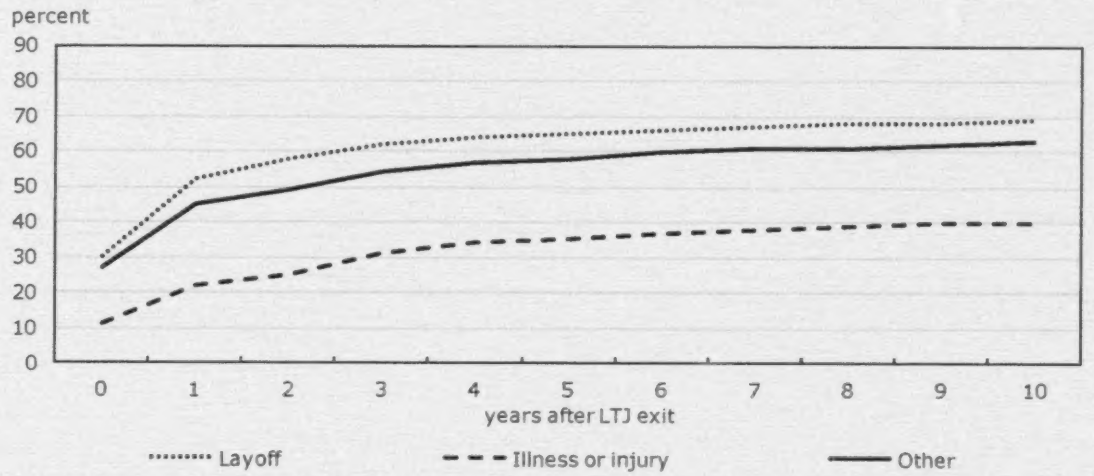
Cumulative percentage of men re-employed after leaving long-term job (LTJ) in paid employment, by reason for LTJ exit and timing of re-employment, workers aged 50 or older, Canada, 1994 to 2010



Source: Statistics Canada, Longitudinal Worker File, full sample.

Chart 7

Cumulative percentage of women re-employed after leaving long-term job (LTJ) in paid employment, by reason for LTJ exit and timing of re-employment, workers aged 50 or older, Canada, 1994 to 2010

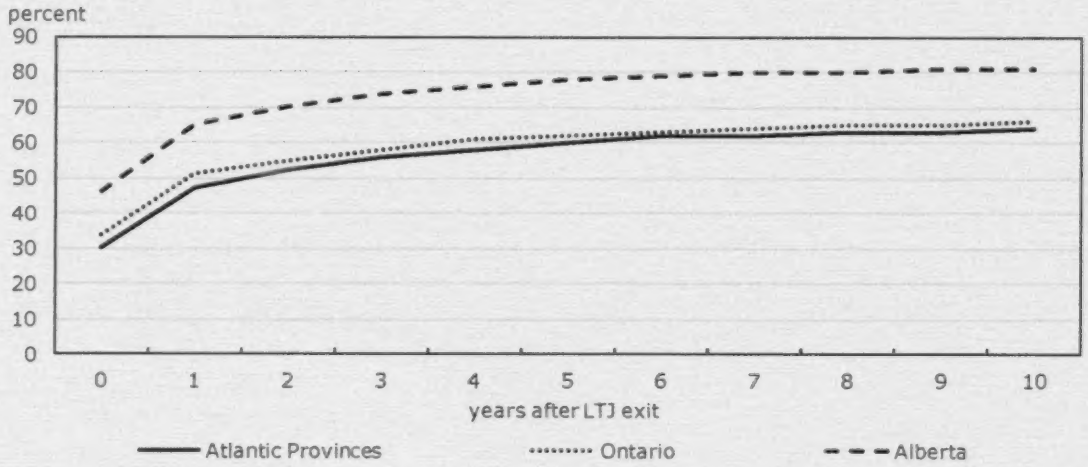


Source: Statistics Canada, Longitudinal Worker File, full sample.

Re-employment after leaving an LTJ varied considerably by province (Charts 8 and 9).[11] The probability of re-employment in the same year as an LTJ exit was much higher for older workers in Alberta (46%) than in Ontario (34%) or the Atlantic Provinces (30%), a pattern that prevailed over subsequent years. This yielded considerable cumulative differences in the overall prevalence of re-employment. For example, within 10 years of leaving their LTJ, more than 80% of men in Alberta were re-employed, compared with 66% in Ontario and 64% in the Atlantic Provinces. The corresponding figures for women were 73% in Alberta, 58% in Ontario, and 59% in the Atlantic Provinces.

Chart 8

Cumulative percentage of men re-employed after leaving long-term job (LTJ) in paid employment, by province and timing of re-employment, workers aged 50 or older, Canada, 1994 to 2010

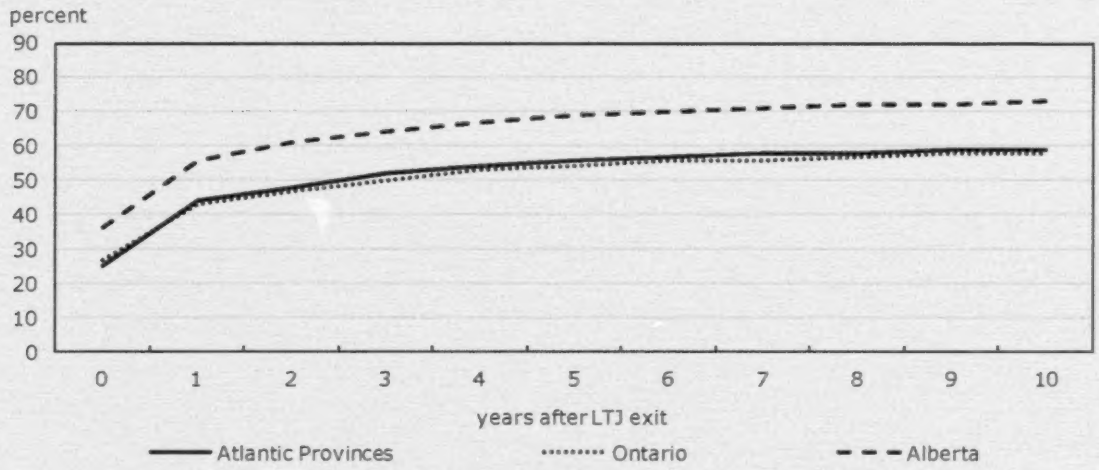


Source: Statistics Canada, Longitudinal Worker File, full sample.

11. Charts 8 and 9 present results for Ontario and the two provinces with the largest estimated difference in probability of re-employment relative to Ontario, positive and negative, as shown in Table 2.

Chart 9

Cumulative percentage of women re-employed after leaving long-term job (LTJ) in paid employment, by province and timing of re-employment, workers aged 50 or older, Canada, 1994 to 2010



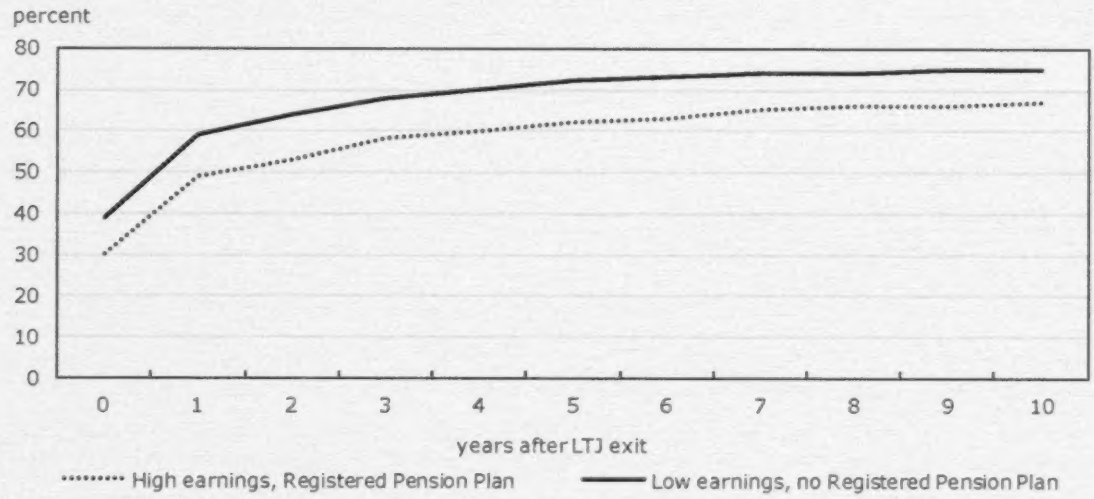
Source: Statistics Canada, Longitudinal Worker File, full sample.

To compare patterns of re-employment by financial circumstances, the duration model was estimated on two groups: (1) those who, in their LTJ, had RPP coverage and "high" earnings (fourth quintile of the gender-specific earnings distribution), and (2) those who, in their LTJ, did not have RPP coverage and had "low" earnings (second quintile of the distribution). By the end of year 10, 67% of men who left their LTJ with an RPP and high earnings were re-employed, compared with 75% of those without an RPP and with low earnings. In short, older workers in less favourable financial circumstances were more likely to return to work. They also returned somewhat sooner: among those ever re-employed, 80% with no RPP and low earnings were re-employed by the end of year 1, compared with 73% with an RPP and high earnings.

Regardless of pension status and earnings, 64% of women were re-employed by the end of year 10, although those with no RPP and low earnings returned sooner than did their counterparts with pension coverage and high earnings. However, the analysis does not take the earnings and RPP status of all household members into account. Among women, in particular, a husband's RPP and earnings may mitigate the effects of low earnings and lack of a private pension plan.

Chart 10

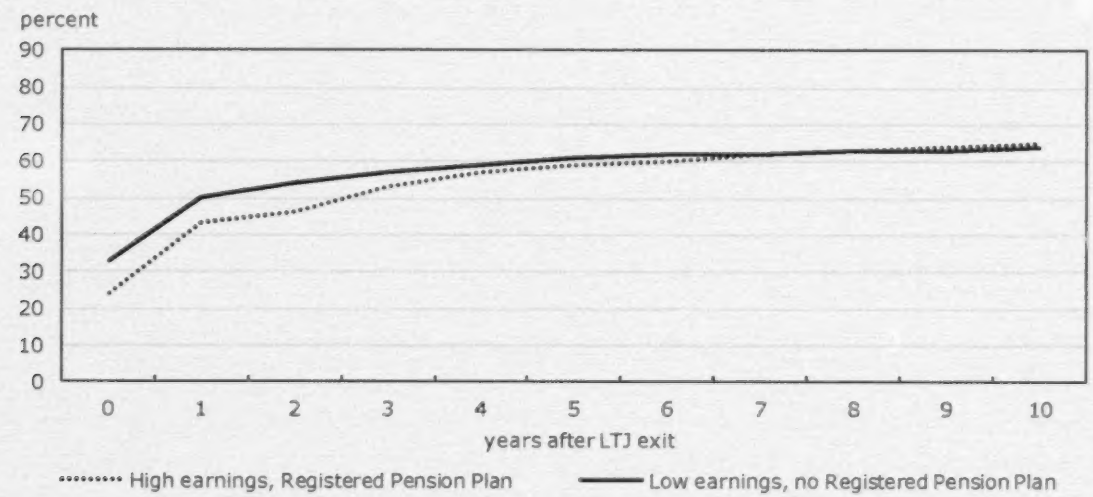
Cumulative percentage of men re-employed after leaving long-term job (LTJ) in paid employment, by financial circumstances and timing of re-employment, workers aged 50 or older, Canada, 1994 to 2010



Source: Statistics Canada, Longitudinal Worker File, full sample.

Chart 11

Cumulative percentage of women re-employed after leaving long-term job (LTJ) in paid employment, by financial circumstances and timing of re-employment, workers aged 50 or older, Canada, 1994 to 2010



Source: Statistics Canada, Longitudinal Worker File, full sample.

5 Unincorporated self-employment

An important distinction between older workers re-employed after leaving an LTJ is whether they returned as paid employees or were self-employed.

The LWF provides only a partial picture of self-employment, because owners of incorporated firms cannot be identified.[12] Consequently, this analysis is limited to unincorporated self-employed workers. Evidence from the Labour Force Survey (LFS) indicates that of all workers aged 51 to 68 who entered self-employment the previous year, 75% of men and 85% of women were unincorporated.[13]

About one-third of men and one-quarter of women who returned to work during the reference period reported net self-employment income.[14] Most of those who were identified in the LWF as unincorporated self-employed also had paid employment earnings (T4-reported). This could reflect separate instances of paid employment or situations where an unincorporated business was incorporated and began issuing T4 earnings to the owner. The two groups cannot be distinguished.

Table 3

Prevalence of re-employment, by type, sex and age group at leaving long-term job (LTJ) in paid employment, workers aged 50 or older, Canada, 1994 to 2010

Sex and type of re-employment	Age group at LTJ exit			Total
	50 to 54	55 to 59	60 to 64	
		percent		
Men				
Percentage re-employed	82.7	62.9	46.8	68.3
Paid employment only	67.2	64.4	64.1	65.7
Self-employment only	7.2	13.2	18.2	10.8
Both	25.6	22.4	17.7	23.5
Total	100.0	100.0	100.0	100.0
Women				
Percentage re-employed	78.3	57.2	41.3	63.7
Paid employment only	77.4	72.8	71.0	75.0
Self-employment only	5.1	10.7	16.8	8.4
Both	17.6	16.4	12.3	16.6
Total	100.0	100.0	100.0	100.0

Note: Numbers may not add up to total (100.0) because of rounding.
Source: Statistics Canada, Longitudinal Worker File, restricted sample.

12. Owners of incorporated businesses who draw a T4-reported wage or salary from their company are included in the "paid worker" category used in much of this analysis. Thus, they are included in the analysis, but not as a separate group.
13. Calculations for 1991, 1997, 2003 and 2009. LFS respondents self-identify as self-employed and as incorporated or unincorporated. Unpaid family workers are excluded from the figures reported above.
14. According to the LFS, from 1994 to 2010, the unincorporated self-employed accounted for 10% to 13% of all employed workers (excluding unpaid family workers) aged 45 to 54; 13% to 19% of those aged 55 to 64; and 30% to 44% of those aged 65 or older. Macdonald (2012) reported high turnover rates among small businesses: a quarter of all new businesses with one worker shut down within a year; just over half were gone by the end of year 3. Given this evidence, the high rates of unincorporated self-employment in the LWF sample over a 10-year period do not seem out of line.

To examine factors associated with self-employment, a discrete time duration model was estimated on the full sample. The model and sample construction are similar to those in Section 4, except that the outcome variable takes the value 1 the first year a worker reported net self-employment income, and zero otherwise. Estimated marginal effects are presented in Table 4.

The probability of self-employment fell as the number of years after leaving an LTJ increased, up to about the fifth full year. Self-employment was more common among workers who were younger when they left their LTJ, and among those who were separated/divorced or married (rather than never-married). Residents of the Atlantic Provinces and Quebec were less likely to report unincorporated self-employment income than were people in Ontario; residents of the western provinces were more likely.

Workers who left an LTJ with an RPP were less likely than those without a pension plan to become self-employed.

Although workers who left an LTJ in the public and quasi-public sectors were less likely than private sector workers to be re-employed, they were more likely to enter unincorporated self-employment. This may be associated with factors not included in the analysis such as education, social networks, and managerial experience.

Older workers who were laid off were more likely than those who left for other reasons to be re-employed, but they were less likely to become self-employed.

Self-employment after leaving an LTJ was less prevalent among older workers in the 2000s than in the mid- to late-1990s.[15]

15. A similar pattern is observed in the LFS.

Table 4

Marginal effects of selected characteristics on probability of self-employment after leaving long-term job (LTJ) in paid employment, by sex, workers aged 50 or older, Canada, 1994 to 2010

	Men	Women
	coefficient	
Number of years to re-employment (reference: 0)		
1	-0.009 ***	-0.006 ***
2	-0.014 ***	-0.009 ***
3	-0.015 ***	-0.010 ***
4	-0.017 ***	-0.011 ***
5	-0.018 ***	-0.012 ***
6	-0.018 ***	-0.012 ***
7	-0.018 ***	-0.012 ***
8	-0.018 ***	-0.012 ***
9	-0.018 ***	-0.012 ***
10	-0.017 ***	-0.012 ***
Age at LTJ exit (reference: 50)		
51	0.002 *	-0.001
52	0.002 *	-0.001 *
53	0.000	-0.002 **
54	-0.001	-0.001 †
55	-0.002 *	-0.002 ***
56	-0.002 ***	-0.002 ***
57	-0.002 ***	-0.003 ***
58	-0.003 ***	-0.003 ***
59	-0.004 ***	-0.004 ***
60	-0.006 ***	-0.004 ***
61	-0.005 ***	-0.005 ***
62	-0.005 ***	-0.005 ***
63	-0.005 ***	-0.006 ***
64	-0.007 ***	-0.007 ***
65	-0.009 ***	-0.007 ***
66	-0.006 ***	-0.006 ***
Marital status (reference: never married)		
Married	0.008 ***	0.002 **
Common-law	0.010 ***	0.004 ***
Widowed	0.005 *	0.000
Divorced	0.008 ***	0.004 ***
Separated	0.009 ***	0.004 ***
Reason for leaving LTJ (reference: other)		
Layoff	-0.002 ***	-0.002 ***
Illness or injury	-0.010 ***	-0.006 ***

See note at the end of table.

Table 4

Marginal effects of selected characteristics on probability of self-employment after leaving long-term job (LTJ) in paid employment, by sex, workers aged 50 or older, Canada, 1994 to 2010 (concluded)

	Men	Women
	coefficient	
Sector of LTJ (reference: private)		
Public	0.005 ***	0.002 ***
Education and health	0.004 ***	0.000
Registered Pension Plan in LTJ	-0.005 ***	-0.004 ***
Permanent earnings divided by $10,000	0.000 ***	0.001 ***
Province of residence (reference: Ontario)		
Atlantic Provinces	-0.005 ***	-0.005 ***
Quebec	-0.006 ***	-0.006 ***
Manitoba	0.002 **	0.001
Saskatchewan	0.008 ***	0.009 ***
Alberta	0.007 ***	0.006 ***
British Columbia	0.004 ***	0.003 ***
Territories	0.005	0.004
Year of LTJ exit (reference: 1999)		
1994	-0.002	-0.003
1995	0.001	0.000
1996	0.000	0.002 *
1997	-0.001	-0.001
1998	-0.001	0.000
2000	-0.002 **	-0.001
2001	-0.003 ***	-0.001 *
2002	-0.003 ***	0.000
2003	-0.004 ***	-0.002 **
2004	-0.003 ***	-0.001
2005	-0.003 ***	0.000
2006	-0.004 ***	0.000
2007	-0.004 ***	-0.001
2008	-0.004 ***	0.000
2009	-0.005 ***	-0.002 †
2010	-0.005 ***	-0.002 †

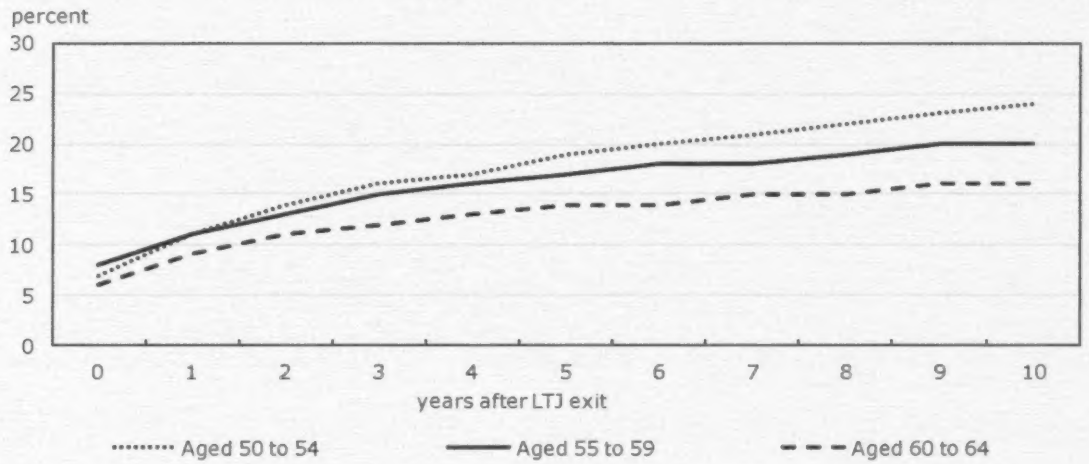
*** significantly different from reference category (p<0.001)
** significantly different from reference category (p<0.01)
* significantly different from reference category (p<0.05)
† significantly different from reference category (p<0.10)
Source: Statistics Canada, Longitudinal Worker File, full sample.

To document patterns of entry into unincorporated self-employment, the duration model was run by five-year age group (Charts 12 and 13). Entry into unincorporated self-employment was not concentrated in the first couple of years after an LTJ exit. Many continued to enter self-employment 4, 5, or even 6 or more years after the LTJ exit. This was particularly true for workers in their 50s. One reason may be that other spells of paid employment occurred in the

period between LTJ exit and self-employment entry. And as noted above, most unincorporated self-employed individuals also had T4 earnings at some point post-LTJ.[16]

Chart 12

Cumulative percentage of men reporting self-employment income after leaving long-term job (LTJ) in paid employment, by age group at LTJ exit and timing of self-employment entry, workers aged 50 or older, Canada, 1994 to 2010

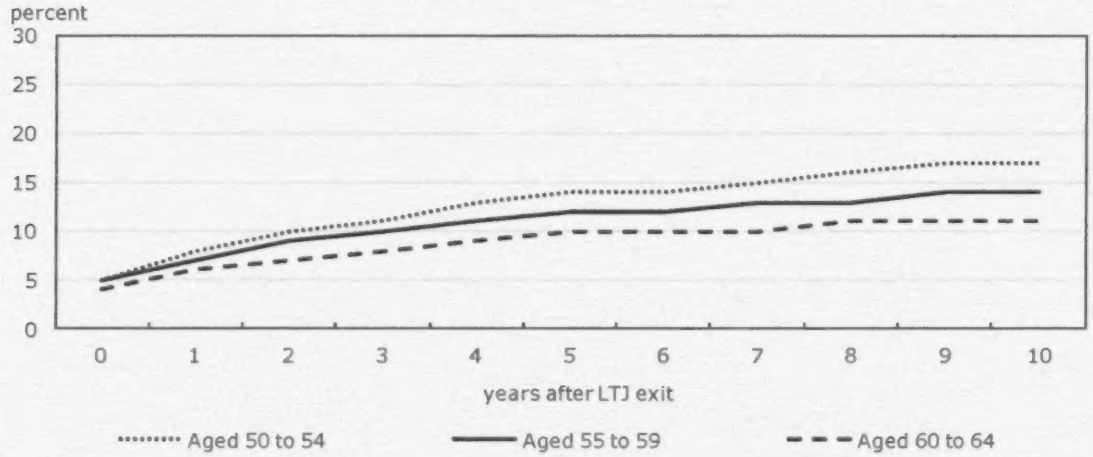


Source: Statistics Canada, Longitudinal Worker File, full sample.

16. About 7% of men and women had been self-employed before leaving their LTJ and continued to be self-employed afterwards. This was more common among those who left their LTJ in their early 60s, than among those who left in their 50s.

Chart 13

Cumulative percentage of women reporting self-employment income after leaving long-term job (LTJ) in paid employment, by age group at LTJ exit and timing of self-employment entry, workers aged 50 or older, Canada, 1994 to 2010



Source: Statistics Canada, Longitudinal Worker File, full sample.

The length of time that older workers remained in unincorporated self-employment, and the earnings they derived from it, varied considerably. One-fifth to one-quarter of them reported net self-employment income in only one year, and about one-third reported such income in no more than two years (Table 5). However, one-third reported self-employment income in six or more years.

Net income from unincorporated self-employment was typically modest. Table 6 shows that from 68% to 76% of men with self-employment income reported an annual average amount under $10,000, and well over half reported less than $5,000. Women were even more likely than men to report these levels of net self-employment income. At the upper end of the distribution, 7% to 11% of men and 3% to 6% of women had an average annual net self-employment income of $30,000 or more. Overall, net self-employment income was less than 10% of the T4 earnings the median older worker had received in the LTJ; in most cases, the amount was less than 5% (Table 7).

Table 5

Distribution of number of years with unincorporated self-employment income after leaving long-term job (LTJ) in paid employment, by sex and age group at LTJ exit, workers aged 50 or older with unincorporated self-employment earnings, Canada, 1994 to 2010

Sex and years with unincorporated self-employment earnings	Age group at LTJ exit			Total
	50 to 54	55 to 59	60 to 64	
	percent			
Men				
1 to 2	35.6	33.9	38.6	35.2
3 to 5	29.0	25.9	26.8	27.5
6 to 8	18.1	18.1	15.5	17.8
9 to 11	17.3	22.1	19.1	19.5
Total	100.0	100.0	100.0	100.0
Women				
1 to 2	40.4	39.0	40.3	39.8
3 to 5	28.2	26.9	25.1	27.3
6 to 8	17.1	17.3	13.4	16.7
9 to 11	14.3	16.9	21.2	16.1
Total	100.0	100.0	100.0	100.0

Note: Numbers may not add up to total (100.0) because of rounding.
Source: Statistics Canada, Longitudinal Worker File, restricted sample.

Table 6

Distribution of average annual net self-employment income after leaving long-term job (LTJ) in paid employment, conditional on non-zero income reported, by sex and age group at LTJ exit, workers aged 50 or older, Canada, 1994 to 2010

Sex and average annual net self-employment income	Age group at LTJ exit			Total
	50 to 54	55 to 59	60 to 64	
		percent		
Men				
Less than $0	29.3	32.7	31.3	30.9
$1 to $999	9.1	10.6	12.7	10.1
$1,000 to $4,999	18.4	19.4	20.9	19.1
$5,000 to $9,999	11.5	11.3	11.4	11.4
$10,000 to $29,999	20.7	17.6	17.1	19.0
$30,000 or more	11.0	8.4	6.6	9.4
Total	100.0	100.0	100.0	100.0
Women				
Less than $0	29.8	31.9	35.0	31.2
$1 to $999	13.0	14.2	16.9	13.9
$1,000 to $4,999	21.5	20.7	20.6	21.1
$5,000 to $9,999	12.3	13.4	12.6	12.8
$10,000 to $29,999	17.3	15.1	11.7	15.7
$30,000 or more	6.1	4.7	3.3	5.2
Total	100.0	100.0	100.0	100.0

Note: Numbers may not add up to total (100.0) because of rounding.
Source: Statistics Canada, Longitudinal Worker File, restricted sample.

Table 7

Median ratio of average annual earnings after leaving long-term job (LTJ) to average annual earnings in LTJ, by sex, age group at LTJ exit and source of earnings, workers aged 50 or older, Canada, 1994 to 2010

Sex and source of earnings	Age group at LTJ exit			Total
	50 to 54	55 to 59	60 to 64	
		percent[1]		
Men				
Only paid employment	66.8	28.6	17.5	46.1
Only self-employment	7.5	2.8	2.0	3.7
Paid and self-employment	43.9	24.6	19.8	34.1
Paid employment	47.9	25.1	20.8	36.7
Self-employment	4.3	2.9	4.3	3.7
Women				
Only paid employment	68.7	34.0	16.7	52.8
Only self-employment	8.2	4.0	3.0	5.0
Paid and self-employment	51.1	31.4	15.6	40.5
Paid employment	54.2	29.8	18.4	41.3
Self-employment	4.8	3.9	1.3	4.2

1. Percentage of average annual earnings in LTJ.
Source: Statistics Canada, Longitudinal Worker File, restricted sample.

6 Paid employment

The analysis of transitions between paid employment in the LTJ and subsequent paid employment is based on the restricted sample (workers who left their LTJ at ages 50 to 64 in the 1994-to-2000 period and who could be followed for a full 10 years). Those reporting net self-employment income during that period are excluded from this part of the analysis.

Number and type of employer

In the decade after their LTJ exit, most re-employed older workers had only one employer (Table 8). A sole employer was more common among those who left at age 55 or older. This group also had fewer years of employment during the 10-year reference period, and fewer job changes, compared with those who left at ages 50 to 54. But even among these "younger" exiters, at least two-thirds had no more than two subsequent employers.

Table 8

Mean, median and distribution of number of employers after leaving long-term job (LTJ) in paid employment, by sex and age group at LTJ exit, workers aged 50 or older, Canada, 1994 to 2010

	Age group at LTJ exit			Total
	50 to 54	55 to 59	60 to 64	
Men				
Mean	2.5	2.1	1.7	2.2
Median	2	1	1	2
Distribution of number of employers (percent)				
One	43.3	53.5	64.2	49.5
Two	24.4	22.8	19.8	23.3
Three	13.4	10.6	8.2	11.7
Four or more	18.9	13.2	7.9	15.5
Total	100.0	100.0	100.0	100.0
Women				
Mean	2.1	1.7	1.5	1.9
Median	1	1	1	1
Distribution of number of employers (percent)				
One	51.4	61.2	72.4	57.0
Two	23.0	22.0	16.8	22.1
Three	11.2	8.6	6.4	9.8
Four or more	14.5	8.2	4.5	11.2
Total	100.0	100.0	100.0	100.0

Note: Numbers may not add up to total (100.0) because of rounding.
Source: Statistics Canada, Longitudinal Worker File, restricted sample.

In switching to the first "new" job, 32% of men and 41% of women remained in the same industry (4-digit NAICS code) (Table 9). Around half (53% of men and 45% of women) found new jobs in a different industry group (2-digit NAICS code). Older workers were somewhat more likely than younger workers to change industries.

Table 9

Distribution of industry group of first new job in paid employment versus long-term job (LTJ), by sex and age group at LTJ exit, workers aged 50 or older, Canada, 1994 to 2010

Sex and industry group	Age group at LTJ exit			Total
	50 to 54	55 to 59	60 to 64	
		percent		
Men				
Same 4-digit NAICS code	33.2	30.1	31.2	31.8
Same 2-digit NAICS code	15.9	14.3	11.5	14.8
Different 2-digit NAICS code	50.9	55.6	57.3	53.4
Total	100.0	100.0	100.0	100.0
Women				
Same 4-digit NAICS code	43.1	39.8	35.0	41.1
Same 2-digit NAICS code	14.6	13.4	15.3	14.2
Different 2-digit NAICS code	42.3	46.8	49.7	44.7
Total	100.0	100.0	100.0	100.0

Notes: NAICS stands for "North American Industry Classification System." Numbers may not add up to total (100.0) because of rounding.
Source: Statistics Canada, Longitudinal Worker File, restricted sample.

About half of all re-employed workers were in firms similar in size to their LTJ firm (Table 10).[17] When a change in firm size occurred, it tended to be to a smaller firm. This may be because about two-thirds of re-employed workers had had an LTJ in firms with 500 or more workers.

Table 10

Distribution of firm size of first new job in paid employment versus long-term job (LTJ), by sex and age group at LTJ exit, workers aged 50 or older, Canada, 1994 to 2010

Sex and firm size	Age group at LTJ exit			Total
	50 to 54	55 to 59	60 to 64	
		percent		
Men				
Same	47.6	46.0	45.5	46.7
Smaller	35.6	39.3	37.5	37.3
Larger	16.8	14.8	17.1	16.0
Total	100.0	100.0	100.0	100.0
Women				
Same	53.9	52.3	48.8	52.8
Smaller	25.5	29.5	33.4	27.7
Larger	20.6	18.2	17.8	19.4
Total	100.0	100.0	100.0	100.0

Note: Numbers may not add up to total (100.0) because of rounding.
Source: Statistics Canada, Longitudinal Worker File, restricted sample.

17. Firm size is a derived variable grouped into 7 categories: 0 to 4.9 employees; 5 to 19.9; 20 to 49.9; 50 to 99.9; 100 to 199.9; 200 to 499.9; and 500 or more.

Years employed

The duration of post-LTJ employment as a paid worker varied with age at LTJ exit. About half of workers who left at ages 50 to 54 (55% of men and 45% of women) worked at least 9 years during the reference period (Table 11). In fact, it appears that LTJ exit at this age had little to do with retirement *per se* and was simply a job change like others over the working life. As well, many who left their LTJ at 55 or older received employment earnings for several years—often 6 or more (for example, 36% of men aged 60 to 64 at LTJ exit).

Table 11

Mean, median and distribution of number of years with earnings in paid employment after leaving long-term job (LTJ) in paid employment, by sex and age group at LTJ exit, workers aged 50 or older, Canada, 1994 to 2010

	Age group at LTJ exit			Total
	50 to 54	55 to 59	60 to 64	
Men				
Mean	7.7	5.7	4.6	6.6
Median	9	5	4	7
Number of years with earnings in paid employment (percent)				
1 to 2	12.2	27.0	37.7	20.8
3 to 5	15.2	23.5	26.8	19.7
6 to 8	17.9	20.0	18.6	18.8
9 to 11	54.7	29.5	16.9	40.8
Total	100.0	100.0	100.0	100.0
Women				
Mean	7.0	5.0	3.8	6.0
Median	8	4	3	6
Number of years with earnings in paid employment (percent)				
1 to 2	17.9	34.9	48.2	27.0
3 to 5	17.3	23.8	27.0	20.6
6 to 8	19.4	17.9	12.2	18.2
9 to 11	45.4	23.4	12.6	34.2
Total	100.0	100.0	100.0	100.0

Note: Numbers may not add up to total (100.0) because of rounding.
Source: Statistics Canada, Longitudinal Worker File, restricted sample.

Of course, the length of time older workers were employed in the decade after an LTJ exit depended on how soon they returned to work. But beyond this, other factors were associated with the duration of post-LTJ re-employment. A count model (negative binomial regression model) was estimated with the number of years with paid employment after LTJ exit (1 to 11) as dependent variable. Marginal effects from this model are presented in Table 12.

Table 12

Marginal effects of selected characteristics on number of years with paid employment in post-long-term job (LTJ), by sex and age group at LTJ exit, workers aged 50 or older, Canada, 1994 to 2010

Characteristics	Sex and age group at LTJ exit					
	Men			Women		
	50 to 54	55 to 59	60 to 64	50 to 54	55 to 59	60 to 64
	coefficient					
Number of years to re-employment (reference: 0)						
1	-1.103 ***	-1.094 ***	-0.766 ***	-0.969 ***	-0.913 ***	-0.844 ***
2	-2.308 ***	-1.848 ***	-1.204 ***	-2.097 ***	-1.660 ***	-1.016 ***
3	-3.774 ***	-2.871 ***	-2.118 ***	-3.925 ***	-2.990 ***	-2.202 ***
4	-4.227 ***	-3.148 ***	-2.652 ***	-4.254 ***	-2.967 ***	-2.169 ***
5	-4.829 ***	-3.213 ***	-2.431 ***	-4.425 ***	-3.102 ***	-2.348 ***
6	-4.871 ***	-3.404 ***	-2.510 ***	-4.625 ***	-3.224 ***	-2.076 ***
7	-5.237 ***	-3.826 ***	-2.806 ***	-4.844 ***	-3.257 ***	-2.283 ***
8	-5.742 ***	-4.109 ***	-2.997 ***	-5.094 ***	-3.526 ***	-2.485 ***
9	-6.034 ***	-4.230 ***	-3.139 ***	-5.371 ***	-3.646 ***	-2.616 ***
10	-6.539 ***	-4.623 ***	-3.589 ***	-5.767 ***	-3.918 ***	-2.884 ***
Reason for leaving LTJ (reference: other)						
Layoff	0.210 *	-0.167	-0.471 *	0.291 **	0.049	-0.359
Illness or injury	0.103	-0.384	-0.805	-0.500	-0.609	-0.877 †
Registered Pension Plan in LTJ	-0.421 ***	-0.730 ***	-0.772 ***	-0.136 †	-0.355 ***	-0.185
Permanent earnings divided by $10,000	-0.022 *	-0.011	0.047 *	-0.014	0.021	0.091 *
Sector of LTJ (reference: private sector)						
Public	-0.667 ***	-0.232 *	0.235	-0.494 ***	-0.563 ***	-0.718 **
Education and health	-0.717 ***	-0.315 **	0.082	-0.365 ***	-0.261 **	-0.119
Marital status (reference: never married)						
Married or common-law	0.562 ***	0.161	0.336	-0.117	-0.145	-0.053
Widowed	-0.741	-0.392	0.781	-0.003	-0.268	0.175
Divorced	0.203	0.192	-0.697 †	0.434 **	0.258	0.494
Separated	0.784 ***	0.155	-0.267	0.607 ***	0.742 **	-0.014
Province of residence (reference: Ontario)						
Atlantic Provinces	-0.214 †	-0.375 **	-0.638 *	0.096	-0.342 *	-0.173
Quebec	-0.209 **	-0.566 ***	-0.167	-0.409 ***	-0.368 ***	-0.207
Manitoba	0.220	-0.049	0.092	0.199	0.505 **	-0.356
Saskatchewan	0.416 †	0.231	-0.511	0.253	0.720 **	0.439
Alberta	0.586 ***	0.416 **	0.689 *	0.802 ***	0.574 ***	0.565 †
British Columbia	0.154	-0.327 **	-0.570 *	0.053	-0.219	-0.743 ***
Territories	0.916 **	0.430	0.369	0.304	-0.688	-0.860

*** significantly different from reference category (p<0.001)
** significantly different from reference category (p<0.01)
* significantly different from reference category (p<0.05)
† significantly different from reference category (p<0.10)
Source: Statistics Canada, Longitudinal Worker File, restricted sample.

Conditional on the timing of re-employment, workers who were laid off from their LTJ in their early 50s worked more years thereafter than did those who left for other reasons. By contrast, men laid off in their early 60s worked for a shorter period than did those who left for other reasons.

Workers who had an RPP in their LTJ worked fewer years than did those without an RPP (this difference was not significant among women in their 60s).

Married men who left an LTJ in their early 50s worked longer than did never-married men, a difference that was not observed among older men or among women overall. Workers who were separated when they left their LTJ worked longer than did those who were never married, particularly at younger ages.

Finally, after leaving their LTJ, workers in the Atlantic Provinces and Quebec were re-employed for a shorter period than were workers in Ontario; those in Alberta remained in the workforce longer.

Relative earnings

Older workers' earnings from all paid employment after they left their LTJ were averaged over the years in which they received positive earnings,[18] and compared with the average of what they had earned over the last 10 years in the LTJ, excluding the final year.[19]

The distribution of the earnings ratios reveals outliers—workers with average annual post-LTJ earnings that were at least twice their LTJ earnings (data not shown). Therefore, the median ratio is a better measure of relative post-LTJ earnings than is the mean ratio.

Among men, the median ratio of post-LTJ earnings to LTJ earnings was 0.67 among those aged 50 to 54 at LTJ exit, and fell to 0.18 among those aged 60 to 64 at exit (Table 13). The ratios for women were almost the same.

Table 13

Ratio of average annual earnings in all new jobs in paid employment to average annual earnings in long-term job (LTJ) in paid employment, by sex and age group at LTJ exit, workers aged 50 or older, Canada, 1994 to 2010

	Age at LTJ exit			Total
	50 to 54	55 to 59	60 to 64	
	ratio			
Men				
Mean	1.17	1.03	1.98	1.20
Median	0.67	0.29	0.18	0.46
Women				
Mean	3.03	2.25	5.30	2.94
Median	0.69	0.34	0.17	0.53

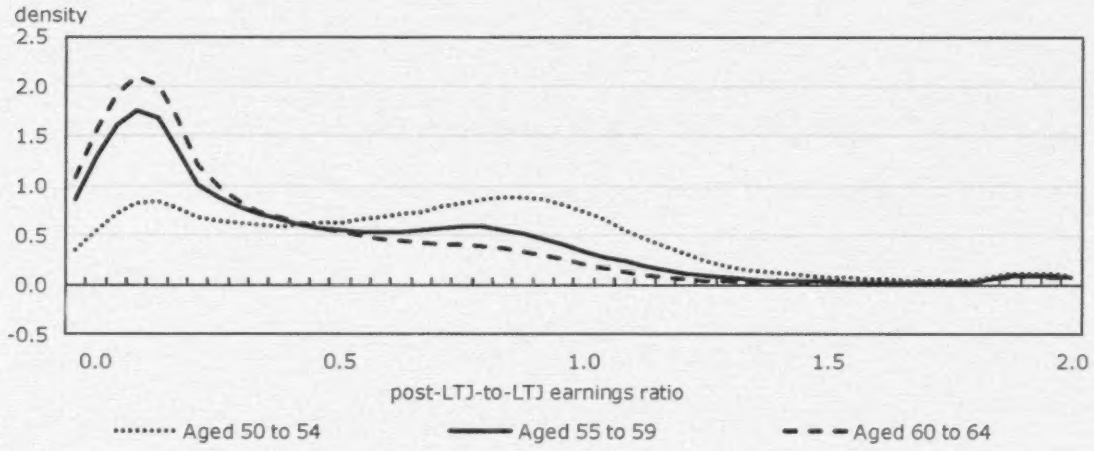
Source: Statistics Canada, Longitudinal Worker File, restricted sample.

The high means and low medians in Table 13 suggest that a large percentage of re-employed workers had low post-LTJ-to-LTJ earnings ratios. This concentration in the lower range of the distribution was more pronounced among workers who left their LTJ at age 55 or older (Charts 14 and 15).[20] The distribution of earnings ratios was more dispersed among those who left at ages 50 to 54—large percentages of them had earnings ratios around 1.0 (suggesting continuation of employment at a level comparable to that of the LTJ) or around 0.1 (suggesting re-employment less intensive and/or well-paid than the LTJ).

18. This includes earnings from all jobs that started between the year of LTJ exit and the end of the reference period 10 calendar years later. Earnings from jobs that started before the LTJ ended and continued for at least one calendar year thereafter were included in the calculations only for the years within the reference period.
19. The ratio of average annual earnings cannot be calculated for about 1% of workers in the sample because their employment earnings were reported as zero on the T4 form. These may be jobs where workers were paid exclusively on commission—information not contained in the LWF. Such workers are excluded from the earnings analysis in this section.
20. For ease of presentation, ratios were capped at 2.

Chart 14

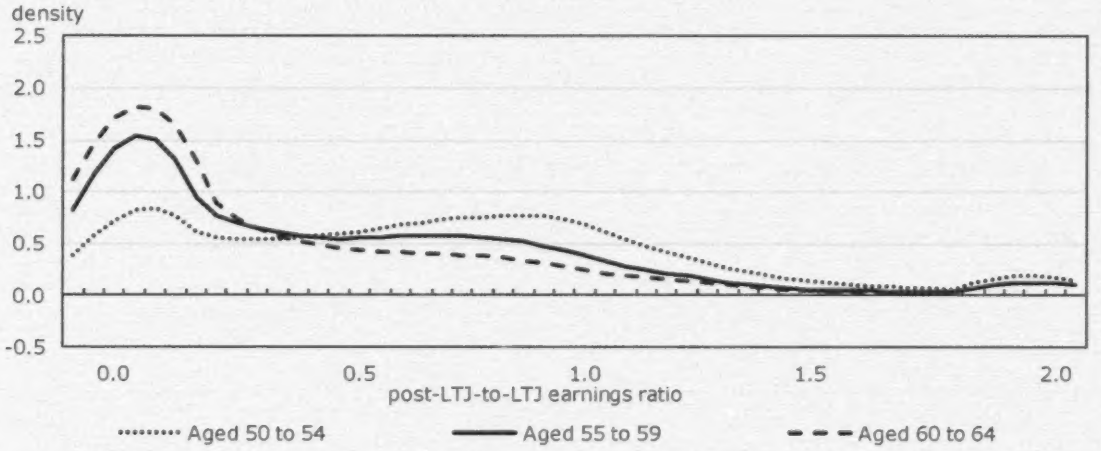
Kernel density of post-LTJ-to-LTJ earnings ratio, by age group at long-term job (LTJ) exit, male workers aged 50 or older, Canada, 1994 to 2010



Source: Statistics Canada, Longitudinal Worker File, restricted sample.

Chart 15

Kernel density of post-LTJ-to-LTJ earnings ratio, by age group at long-term job (LTJ) exit, female workers aged 50 or older, Canada, 1994 to 2010



Source: Statistics Canada, Longitudinal Worker File, restricted sample.

To identify factors associated with low or high post-LTJ-to-LTJ earnings ratios, two separate binary dependent variables were defined. The first takes the value of 1 if relative earnings were below 0.25, and zero otherwise (low earnings ratio). The second takes the value 1 if relative earnings were at least 0.75, and zero otherwise (high earnings ratio). Reduced form probit models were estimated separately for the three age groups. Marginal effects on the probability of having low or high earnings are presented in Tables 14 and 15 for men and women, respectively.

Earnings ratios were more likely to be low among those who took longer to re-enter the workforce. Of course, given the fixed reference period, these individuals also had fewer years in which they could be employed, and hence, shorter job durations.

Among men, marital status was not significantly associated with having either a low or high earnings ratio. By contrast, among women, particularly those aged 50 to 54 at LTJ exit, divorce and separation were positively associated with high earnings ratios.

Compared with their counterparts in Ontario, workers in Alberta were more likely to have higher earnings ratios, while workers in Quebec were more likely to have low earnings ratios.

Associations between earnings ratios and reasons for LTJ exit were generally in the expected directions, although differences were sometimes significant for one sex but not the other. For example, men laid off from their LTJ were less likely than those who left for other reasons to have either low or high earnings ratios, which indicates that they were concentrated in the middle of the earnings ratio distribution. Among women, layoffs were associated only with a low probability of high earnings ratios. An LTJ exit due to illness or injury was strongly associated with low earnings ratios for women; among men, this relationship was significant only for those who left their LTJ at ages 60 to 64.

It might be anticipated that financial preparedness would be positively associated with a low earnings ratio, presuming that such an outcome implies less need for continued employment. Indeed, workers who had an RPP and higher earnings in their LTJ were more likely than those who did not to have a low earnings ratio. Men who left an LTJ in the public or quasi-public sector were more likely than those leaving a private sector LTJ to have low earnings ratios, and less likely to have high earnings ratios. However, among women, an LTJ in the public sector was negatively associated with a low earnings ratio, and positively associated with a high earnings ratio.

Table 14

Marginal effects of selected characteristics on probability of low and high relative earnings in new jobs compared with long-term job (LTJ) in paid employment, by age group at LTJ exit, male workers aged 50 or older, Canada, 1994 to 2010

Characteristics	Age group at LTJ exit					
	Low relative earnings			High relative earnings		
	50 to 54	55 to 59	60 to 64	50 to 54	55 to 59	60 to 64
	coefficient					
Number of years to re-employment (reference: 0)						
1	0.050	0.067	0.168 †	0.008	0.100 *	0.040
2	1.121 ***	1.053 ***	0.900 ***	-1.126 ***	-1.206 ***	-1.722 ***
3	1.495 ***	1.288 ***	1.007 ***	-1.241 ***	-1.078 ***	-1.009 ***
4	1.720 ***	1.465 ***	1.499 ***	-1.416 ***	-1.118 ***	-0.998 ***
5	1.555 ***	1.419 ***	1.424 ***	-1.398 ***	-1.409 ***	-1.065 **
6	1.663 ***	1.515 ***	1.783 ***	-1.171 ***	-1.452 ***	..
7	1.955 ***	2.039 ***	1.509 ***	-1.794 ***	..	-1.145 *
8	1.688 ***	2.059 ***	1.615 ***	-1.414 ***	..	-1.044 *
9	2.788 ***	1.892 ***	1.275 ***	-1.710 ***	-1.386 ***	-0.774
10	2.537 ***	2.227 ***	1.781 ***	..	..	..
Reason for leaving LTJ (reference: other)						
Layoff	-0.121 †	-0.125 †	0.228 †	-0.227 ***	-0.162 *	-0.313 †
Illness or injury	0.172	0.366	1.169 **	0.064	-0.268	-0.720
Registered Pension Plan in LTJ	0.517 ***	0.646 ***	0.755 ***	-0.425 ***	-0.461 ***	-0.491 ***
Permanent earnings divided by $10,000	0.018 ***	0.034 ***	0.039 *	-0.020 ***	-0.049 ***	-0.035 †
Sector of LTJ (reference: private)						
Public	0.479 ***	0.404 ***	0.241 *	-0.420 ***	-0.334 ***	-0.448 **
Education and health	0.097 †	0.425 ***	0.267 *	-0.183 ***	-0.409 ***	-0.327 *
Marital status (reference: never married)						
Married or common-law	-0.077	0.076	-0.275	0.038	-0.044	-0.052
Widowed	0.053	0.280	0.304	-0.167	-0.424 *	-0.544
Divorced	0.062	-0.113	-0.110	-0.146	0.157	-0.072
Separated	-0.239 †	0.074	-0.336	0.167	0.075	-0.467
Province of residence (reference: Ontario)						
Atlantic Provinces	0.213 **	0.074	-0.141	-0.120 *	0.012	-0.005
Quebec	-0.037	0.114 *	0.369 ***	-0.117 **	-0.266 ***	-0.329 **
Manitoba	0.027	0.274 **	0.050	0.077	-0.282 *	-0.185
Saskatchewan	0.395 **	0.205	0.771 **	-0.247 *	-0.361 *	-0.129
Alberta	-0.236 **	-0.152 †	-0.194	0.150 *	0.087	0.323 †
British Columbia	-0.014	0.045	0.350 **	0.081	-0.072	-0.278 †
Territories	0.080	-0.653	0.217	0.215	0.000	..

.. not available for a specific reference period
*** significantly different from reference category (p<0.001)
** significantly different from reference category (p<0.01)
* significantly different from reference category (p<0.05)
† significantly different from reference category (p<0.10)
Source: Statistics Canada, Longitudinal Worker File, restricted sample.

Table 15

Marginal effects of selected characteristics on probability of low and high relative earnings in new jobs compared with long-term job (LTJ) in paid employment, by age group at LTJ exit, female workers aged 50 or older, Canada, 1994 to 2010

Characteristics	Age group at LTJ exit					
	Low relative earnings			High relative earnings		
	50 to 54	55 to 59	60 to 64	50 to 54	55 to 59	60 to 64
	coefficient					
Number of years to re-employment (reference: 0)						
1	-0.101 *	0.085 †	-0.015	0.018	0.003	0.165
2	1.073 ***	1.072 ***	1.156 ***	-1.088 ***	-1.059 ***	-1.069 ***
3	1.592 ***	1.528 ***	1.255 ***	-1.363 ***	-1.335 ***	-0.88 ***
4	1.662 ***	1.453 ***	1.227 ***	-1.376 ***	-0.860 ***	-1.063 ***
5	1.371 ***	1.215 ***	1.349 ***	-1.522 ***	-1.003 ***	-1.268 **
6	1.817 ***	1.546 ***	1.328 ***	-1.896 ***	-1.258 ***	-1.306 **
7	1.428 ***	1.924 ***	2.218 ***	-1.424 ***	-1.899 ***	-1.275 **
8	1.800 ***	2.092 ***	1.301 ***	-1.527 ***	-1.863 ***	-0.775 †
9	2.150 ***	1.803 ***	1.636 ***	-1.758 ***	-1.382 ***	-1.093 *
10	2.508 ***	2.437 ***	..	-2.249 ***	-1.749 ***	..
Reason for leaving LTJ (reference: other)						
Layoff	-0.001	0.025	0.142	-0.042	-0.324 ***	-0.433 **
Illness or injury	0.568 ***	0.377 †	0.465	-0.666 ***	-0.446 †	-0.456
Registered Pension Plan in LTJ	0.315 ***	0.390 ***	0.379 ***	-0.246 ***	-0.309 ***	-0.232 *
Permanent earnings divided by $10,000	0.052 ***	0.117 ***	0.067 **	-0.071 ***	-0.150 ***	-0.179 ***
Sector of LTJ (reference: private)						
Public	-0.095	-0.299 ***	-0.181	0.103 †	0.215 **	0.200
Education and health	0.000	0.059	0.171 †	0.187 ***	0.086 †	-0.153
Marital status (reference: never-married)						
Married or common-law	-0.121 *	0.070	-0.124	0.021	-0.073	0.069
Widowed	-0.106	0.197 †	0.304	-0.107	-0.121	-0.157
Divorced	-0.260 **	-0.119	-0.353 †	0.235 ***	0.144	0.209
Separated	-0.466 ***	-0.192	-0.249	0.314 **	0.110	0.280
Province of residence (reference: Ontario)						
Atlantic Provinces	0.062	0.075	0.263	-0.058	-0.045	-0.104
Quebec	0.263 ***	0.121 *	0.136	-0.177 ***	-0.147 **	-0.115
Manitoba	0.134	-0.025	0.369 †	-0.122	-0.014	-0.282
Saskatchewan	0.344 **	-0.074	0.152	0.081	0.222	-0.211
Alberta	-0.205 *	-0.153 †	0.015	0.096	0.083	0.101
British Columbia	-0.014	0.121	0.274 †	0.014	0.036	-0.137
Territories	-0.323	-1.053	-0.782	0.582 †	-0.816	..

.. not available for a specific reference period
*** significantly different from reference category (p<0.001)
** significantly different from reference category (p<0.01)
* significantly different from reference category (p<0.05)
† significantly different from reference category (p<0.10)
Source: Statistics Canada, Longitudinal Worker File, restricted sample.

7 Conclusions and implications

This analysis explored the prevalence and nature of re-employment among older workers after leaving an LTJ as a paid employee. The study was based on an administrative dataset, the Longitudinal Worker File, which offers several advantages for this type of analysis: a 28-year panel length, large sample size, high-quality earnings data, and detailed information on mobility across employers.

Several key findings emerged. After leaving their LTJ, two-thirds of older workers were re-employed, the majority of them within the first few years of leaving, regardless of age at LTJ exit, reason for leaving, province of residence, and financial circumstances.

The time between LTJ exit and re-employment was associated with subsequent attachment to the workforce. The more years that elapsed, the lower the likelihood of re-employment, the higher the likelihood that re-employment would be of short duration, and the higher the likelihood of low earnings in post-LTJ employment relative to LTJ earnings. Whether this reflects individual re-employment preferences or barriers and constraints warrants further research.

Many workers who left LTJs in their early 50s appeared to be continuing their careers, as evidenced by sustained high labour force attachment in terms of the length of re-employment and high earnings. Workers who left their LTJ in their late 50s and early 60s were less likely than their younger counterparts to be re-employed, and their subsequent earnings were more modest.

A large percentage of older workers who left an LTJ as a paid employee reported income from unincorporated self-employment at some point during the subsequent 10 years. Entry into self-employment was less concentrated in the first two years after LTJ exit than was entry into paid employment. Two-thirds of re-employed workers with income from unincorporated self-employment also reported earnings from paid employment. Net self-employment earnings were typically modest compared with earnings on the LTJ.

Appendix

Table 16

Distribution of study sample, by age at long-term job exit and sex, workers aged 50 or older in paid employment, Canada, 1994 to 2010

	Total	Men	Women
		number	
Sample size (workers)	280,617	148,829	131,788
		percent	
Age			
50	2.8	2.7	2.8
51	3.1	3.1	3.1
52	3.4	3.3	3.4
53	3.8	3.7	3.9
54	4.2	4.1	4.2
55	11.5	11.5	11.5
56	10.9	10.8	10.9
57	9.8	9.7	9.9
58	9.3	9.3	9.2
59	8.4	8.4	8.4
60	8.8	8.6	9.0
61	6.6	6.6	6.6
62	5.1	5.1	5.0
63	4.0	4.1	3.9
64	3.2	3.3	3.1
65	3.6	3.8	3.4
66	1.7	1.8	1.6
Total	100.0	100.0	100.0

Note: Numbers may not add up to total (100.0) because of rounding.
Source: Statistics Canada, Longitudinal Worker File, full sample.

Table 17

Distribution of selected socio-demographic characteristics of study sample and characteristics of long-term job (LTJ) in paid employment, by age group at LTJ exit and sex, workers aged 50 or older, Canada, 1994 to 2010

Characteristics	Sex and age group at LTJ exit					
	Men			Women		
	50 to 54	55 to 59	60 to 64	50 to 54	55 to 59	60 to 64
	number					
Sample size (workers)	25,224	73,947	41,297	23,040	65,808	36,355
	percent					
Marital status						
Married or common-law	81.5	82.3	83.7	74.0	72.9	69.9
Divorced	0.9	1.3	2.0	3.3	4.6	7.4
Separated	5.7	5.1	4.8	8.8	8.7	10.2
Widowed	4.0	3.5	2.9	4.0	3.4	3.2
Never married	8.0	8.0	6.7	10.0	10.4	9.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Reason for leaving LTJ						
Layoff	11.5	7.7	8.9	11.3	8.8	9.5
Illness or injury	1.5	1.4	1.5	2.2	2.0	2.1
Other	87.0	90.9	89.6	86.5	89.2	88.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Pension plan in LTJ						
Yes	73.3	74.8	70.2	64.6	70.6	66.4
No	26.7	25.3	29.8	35.4	29.4	33.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
Sector of LTJ						
Private	69.7	68.6	71.3	51.8	45.9	48.2
Public	19.1	17.8	15.6	11.5	13.9	12.9
Education and health	11.2	13.6	13.1	36.7	40.2	38.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
	2007 constant Canadian dollars					
Permanent earnings						
10th percentile	28,354	29,930	22,179	14,077	15,528	10,316
25th percentile	34,269	35,749	28,963	17,945	19,575	14,116
50th percentile	61,480	61,116	55,504	37,910	39,387	33,640
75th percentile	79,600	79,553	74,906	54,861	56,016	47,646
90th percentile	101,549	100,824	96,427	71,785	72,199	65,122

See note at the end of table.

Table 17

Distribution of selected socio-demographic characteristics of study sample and characteristics of long-term job (LTJ) in paid employment, by age group at LTJ exit and sex, workers aged 50 or older, Canada, 1994 to 2010 (concluded)

Characteristics	Sex and age group at LTJ exit					
	Men			Women		
	50 to 54	55 to 59	60 to 64	50 to 54	55 to 59	60 to 64
	percent					
Province of residence						
Atlantic Provinces	9.6	8.6	7.7	8.8	7.8	7.2
Quebec	27.7	28.1	26.6	28.8	26.0	23.3
Ontario	39.2	36.2	37.4	37.7	37.6	39.2
Manitoba	3.1	3.9	3.7	3.5	4.2	4.2
Saskatchewan	2.6	2.5	2.4	2.7	3.0	3.4
Alberta	7.4	8.1	7.9	7.8	8.5	8.4
British Columbia	10.2	12.5	14.2	10.4	12.8	14.1
Territories	0.3	0.2	0.2	0.3	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

Note: Numbers may not add up to total (100.0) because of rounding.
Source: Statistics Canada, Longitudinal Worker File, full sample (excluding workers aged 65 or older at LTJ exit).

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